

Appl. No. 09/832,581  
Atty. Docket No. 8494  
Amdt. dated November 25, 2003  
Reply to Office Action of September 25, 2003  
Customer No. 27752

### AMENDMENTS TO THE CLAIMS

This listing of claims reflects the claims in the application:

- 1-8. (Cancelled).
9. (Currently amended) A filter ~~[for removing microorganisms from a fluid,]~~ comprising:
  - a) a housing having an inlet and an outlet; and
  - b) a filter material for removing microorganisms from water, said filter material disposed within said housing, said filter material formed at least in part from a plurality of filter particles comprising a carbonized and activated lignosulfonate coating, wherein the sum of mesopore and macropore volumes of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 0.2 mL/g and about 2.2 mL/g.
10. (Original) The filter of claim 9, wherein said lignosulfonate is selected from the group consisting of ammonium lignosulfonate, zinc lignosulfonate, calcium lignosulfonate, ferric lignosulfonate, magnesium lignosulfonate, chromium lignosulfonate, manganese lignosulfonate, sodium lignosulfonate, copper lignosulfonate, and mixtures thereof.
11. (Original) The filter of claim 9, wherein said plurality of filter particles are selected from the group consisting of glass fibers, screens, ceramic fibers, wovens, non-wovens, and mixtures thereof.
12. (Previously Presented) The filter of claim 9, wherein the ~~[carbon add-on in said activated coating is less than about 85%]~~ BET surface area of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 500 m<sup>2</sup>/g and about 3000 m<sup>2</sup>/g.
13. (Previously Presented) The filter of claim 9, wherein the carbon add-on in said carbonized and activated lignosulfonate coating is between about 0.1% and about 85%.
14. (Previously Presented) The filter of claim 9, wherein the carbon add-on in said carbonized and activated lignosulfonate coating is between about 0.5% and about 45%.
15. (Cancelled).

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16. (Previously Presented) The filter of claim 9, wherein the ratio of the sum of the mesopore and macropore volumes to the micropore volume of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 0.3 and about 3.
17. (Currently amended) A filter [~~for removing microorganisms from a fluid,~~] comprising:
  - a) a housing having an inlet and an outlet; and
  - b) a filter material for removing microorganisms from water, said filter material disposed within said housing, said filter material formed at least in part from a plurality of filter particles comprising a carbonized and activated lignosulfonate coating, wherein the carbon add-on in said carbonized and activated lignosulfonate coating is less than about 85% and wherein the BRI of said filter particles is greater than 99%, and wherein the sum of mesopore and macropore volumes of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 0.2 mL/g and about 2.2 mL/g.
18. (Original) The filter of claim 17, wherein said plurality of filter particles have a BRI greater than about 99.9%.
19. (Original) The filter of claim 17, wherein said plurality of filter particles have a BRI greater than about 99.99%.
20. (Original) The filter of claim 17, wherein said plurality of filter particles have a BRI greater than about 99.999%.
21. (Original) The filter of claim 17, wherein said plurality of filter particles have a VRI greater than about 90%.
22. (Original) The filter of claim 17, wherein said plurality of filter particles have a VRI greater than about 95%.
23. (Original) The filter of claim 17, wherein said plurality of filter particles have a VRI between greater than about 99%.

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24. (Original) The filter of claim 17, wherein said plurality of filter particles have a VRI greater than about 99.9%.
25. (Original) The filter of claim 17, wherein said plurality of filter particles are selected from the group consisting of glass fibers, screens, ceramic fibers, wovens, non-wovens, and mixtures thereof comprise glass fibers.
26. (Previously Presented) The filter of claim 17, wherein the carbon add-on in said carbonized and activated lignosulfonate coating is between about 0.1% and about 85%.
27. (Previously Presented) The filter of claim 17, wherein the carbon add-on in said carbonized and activated lignosulfonate coating is between about 0.5% and about 45%.
28. (Original) The filter of claim 17, wherein said lignosulfonate is selected from the group consisting of ammonium lignosulfonate, zinc lignosulfonate, calcium lignosulfonate, ferric lignosulfonate, magnesium lignosulfonate, chromium lignosulfonate, manganese lignosulfonate, sodium lignosulfonate, copper lignosulfonate, and mixtures thereof.
29. (Previously Presented) The filter of claim 17, wherein the BET surface area of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 500 m<sup>2</sup>/g and about 3000 m<sup>2</sup>/g.
30. (Cancelled).
31. (Previously Presented) The filter of claim 17, wherein the ratio of the sum of the mesopore and macropore volumes to the micropore volume of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 0.3 and about 3.
32. (Currently amended) A filter [~~for removing microorganisms from a fluid,~~] comprising:  
a) a housing having an inlet and an outlet; and  
b) a filter material for removing microorganisms from a fluid, said filter material disposed within said housing, said filter material formed at least in part from a plurality of filter particles comprising a carbonized and activated lignosulfonate

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coating, wherein the carbon add-on in said carbonized and activated lignosulfonate coating is less than about 85%, and wherein the BRI of said filter particles is greater than 99.9%, and the VRI of said filter particles is greater than about 95%, and wherein the sum of mesopore and macropore volumes of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 0.2 mL/g and about 2.2 mL/g.

33. (Original) The filter of claim 32, wherein said lignosulfonate is selected from the group consisting of ammonium lignosulfonate, zinc lignosulfonate, calcium lignosulfonate, ferric lignosulfonate, magnesium lignosulfonate, chromium lignosulfonate, manganese lignosulfonate, sodium lignosulfonate, copper lignosulfonate, and mixtures thereof.
34. (Original) The filter of claim 32, wherein said plurality of filter particles are selected from the group consisting of glass fibers, screens, ceramic fibers, wovens, non-wovens, and mixtures thereof comprise glass fibers.
35. (Previously Presented) The filter of claim 32, wherein the BET surface area of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 500 m<sup>2</sup>/g and about 3000 m<sup>2</sup>/g.
36. (Cancelled).
37. (Previously Presented) The filter of claim 32, wherein the ratio of the sum of the mesopore and macropore volumes to the micropore volume of one or more of said carbonized and activated lignosulfonate coated filter particles is between about 0.3 and about 3.
- 38-64. (Cancelled).